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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF	:
WOLFGANG GUENTHER, ET AL.	: EXAMINER: TOOMER, C. D.
SERIAL NO: 09/720,257	:
FILED: JANUARY 9, 2001	: GROUP ART UNIT: 1714
FOR: FUEL COMPOSITION CONTAINING PROPOXILATE	:

DECLARATION UNDER 37 C.F.R. § 1.132

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Now comes Dr. Harald Schwahn, who deposes and states:

1. That I am a graduate of University of Heidelberg and received a doctor's degree in the year 1989.

2. That I have been employed by BASF Aktiengesellschaft, since 1989 as a researcher in the fields of catalyst development and fuel additives.

3. That I am an inventor of the above-identified application and that I am familiar with the Examiner's rejections of the claims of the above-identified application.

4. That the following experiments were carried out by me or under my direct supervision and control.

4.1. Preparation of Additive Mixtures:

a) Serial A

A mixture as claimed in Claim 3 of the above-identified application, i.e. a mixture of

(1) a poly-isobutyl amine (average molecular weight about 1000) manufactured by hydroformylation of a corresponding polyisobutene and amination of the resulting aldehyde and alcohol mixture with ammonia under hydrogenating conditions ("the detergent"), and

(2) a propoxylate as claimed in Claim 1 of the present application, i.e. the reaction product of the C_{13}-alkyl alcohol tridecanol with 15 moles of propylene oxide, in the weight ratio of 0.84:1 was prepared (hereinafter Sample A).

For comparison, three more samples (hereinafter Samples A1, A2, A3) were prepared consisting of the same mixture as used for Sample A above, however, the propoxylate being the reaction product of tridecanol with 13, 18, and 19 moles, respectively, of propylene oxide.

b) Serial B

A mixture of

(1) a poly-isobutyl amine (average molecular weight about 1000) manufactured by hydroformylation of a corresponding polyisobutene and amination of the resulting aldehyde and alcohol mixture with ammonia under hydrogenating conditions ("the detergent"), and

(2) a propoxylate which is the reaction product of the C_6-alkyl alcohol 1-hexanol with 15 moles of propylene oxide, in the weight ratio of 0.84:1 was prepared (hereinafter Sample B).

In addition, three more samples (hereinafter Samples B1, B2, B3) were prepared consisting of the same mixture as used for Sample B above, however, the propoxylate being the reaction product of 1-hexanol with 13, 18, and 19 moles, respectively, of propylene.

The following sample is within the scope of the claims: **Sample A.**

The following samples are outside the scope of the claims: **Samples A1, A2, A3, B,**

B1, B2, B3.

4. 2. Engine Test:

In engine tests, the above Samples A, B, A1, A2, A3, B1, B2 and B3 were tested, each at an amount of 300 ppm, with regard to their efficiency in keeping the intake valves clean. Determination of valve deposits was made in the Mercedes Benz M 102 E engine according to CEC-F-05-A-93. The fuel used was unleaded European premium grade according to DIN EN 228.

4.3. Results and Discussion:

The attached graph shows the results of these engine tests. The graph is hereby incorporated into the Declaration.

The results show that for the same amount of fuel additive employed, viz. 300 ppm, Sample A (according to the present application) affords a greater reduction in average valve deposits measured, as compared with Samples A1, A2 and A3. As one of ordinary skill in this art, I did not expect to see a greater reduction in average valve deposits measured. What I did expect to see was a similar result for all samples of said Serial A. Surprisingly, however, Sample A provides an optimum of said four samples of Serial A.

The results for Samples B, B1, B2 and B3 show that the optimum of said samples is not provided by Sample B which corresponds to Sample A, except for the length of the alkyl residue of the alcohol moiety of its porpoxylate component. No real optimum is derivable from Serial B. Moreover, all four samples B, B1, B2 and B3 afford a lower, inferior reduction in average valve deposits measured, as compared with Samples A, A1, A2 and A3. As one ordinary of skill in this art, I did not expect to see for Samples B, B1,B2 and B3 a behaviour different from that of Samples A, A1, A2 and A3.

The data of Table 1 of the present application are also included in the attached graph,

together with a trend line, for clarification. In said previous experiments fuel was exclusively supplemented by 400 ppm of porpoxylate additive. The attached graph shows in addition that the optimum Sample A of the present experiments, corresponds to the previously observed optimum at 15 moles of propylene oxide.

Therefore, said new experiments (Serial A) further support the observations, which we previously had made.

5. The undersigned petitioner declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing therefrom.

6. Further deponent saith not.

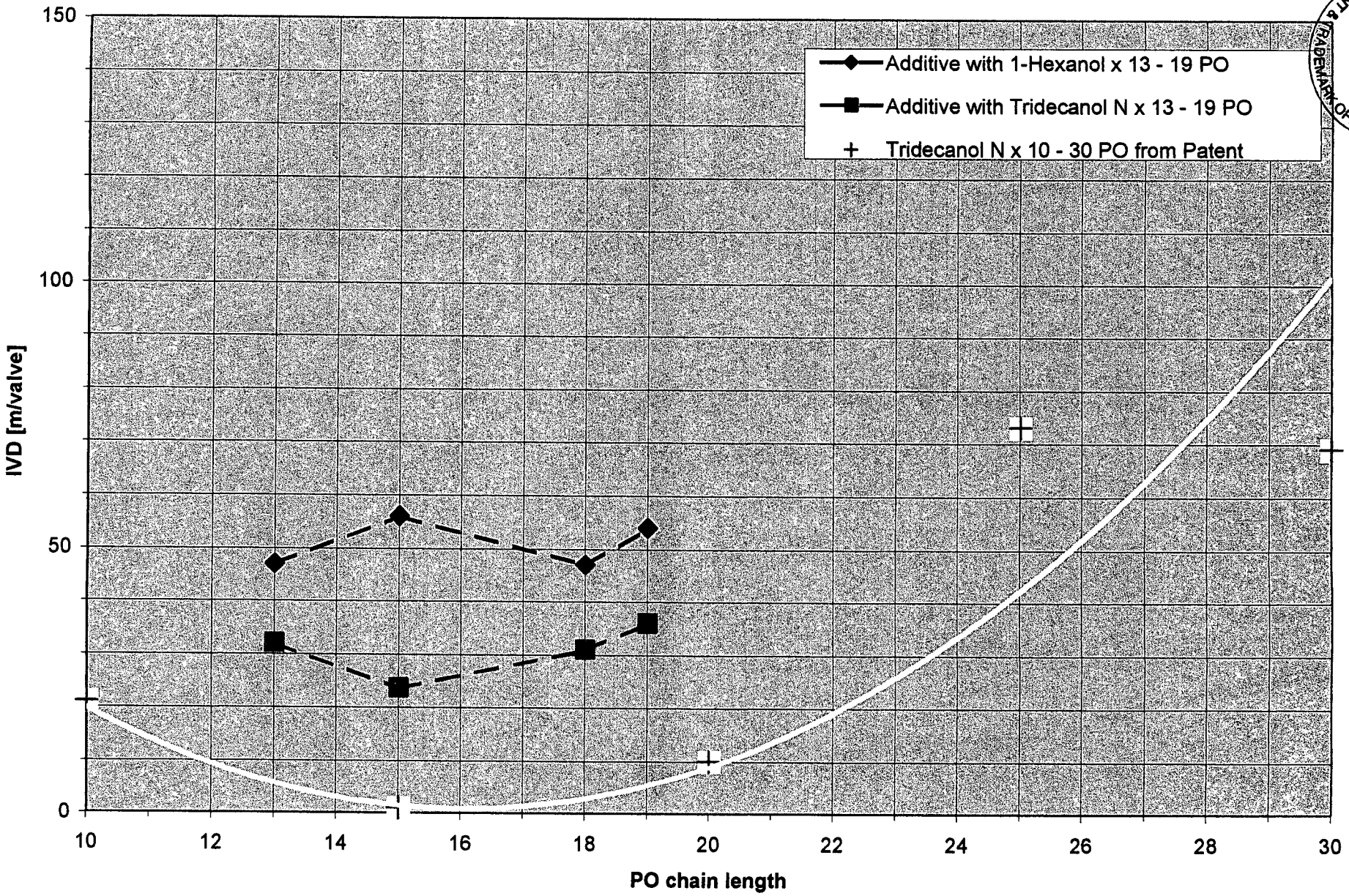
H. Schwalm

Signature

Sept. 1st, 2005

Date

PF 49183 "Fuel Composition Containing Propoxilate"
CEC F-05-A 93 Engine Tests (M 102 E) -- Intake Valve Deposits



EVO/MO - Dr. Schwahn

Stand: 04.08.2005